INTERMITTENT CLAUDICATION AND PHYSICAL EXERCISE: effectiveness of a home-based program

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Introduction

Peripheral arterial disease (PAD) as a high incidence in general population and 12% to 20% of population with more than 60 years has already clinical symptoms, such as intermittent claudication (IC), pain, loss of strength and functional incapacity. There are already some studies who refer the possible positive effects of physical exercise in functional consequences of PAD (1,2)

Purpose

The purpose of this study was to verify the results of a home-based (HB) weekly supervised physical exercise program in patients with IC in consequence of PAD in lower limbs, and observe the medium number of diary steps walked by the subjects of our study.

Methods

Fourteen subjects (11 males and 3 females; 72.4 6.7 years; BMI 27.1 2.8 kg/m2) with IC participated in our study

• Throught the 6 minutes walk test (6MWT) (3) we have assessed the distance until claudication (DC) (distance walked until pain); maximal distance walked (MDW) (distance walked until maximal pain) and functional capacity (FC) (total number of meters walked in 6MWT)

• We assessed also the rate of perceived exertion (RPE) with CR10 of Borg

•The highest number of repetitions of elevation of heel or Maximum Heel Raise (MHR) whore also assessed

•We have applied a HB program during 8 weeks. This program included daily execution of elevations of heels for leg muscles and a walk.

Results and Discussion

• Results show elevation in DC (178.8±75.5 vs 259.6±116.7), MDW (255.5±104.4 vs 326.5±137.9), FC (299.1±115.1 vs 389.6±102.1) and MHR (42.1±14.7 vs 59.9±21.6), respectively before and after HB program.

•The RPE also decreased (3.1 1.1 vs 2.6 0.6) but not significantly.

• With a pedometer we have observed also that subjects of our study walked 4990 1872 steps a day. These value is within the range of steps recommended for adults with chronicle diseases (4).

Table1 – Number distance walked until pain (DC), distance walked until maximal pain (MDW) and functional capacity (FC) before and after the HB program, respectively

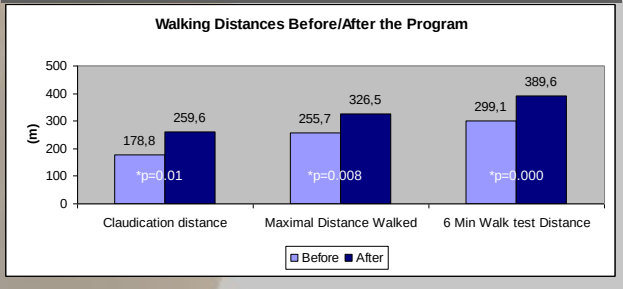
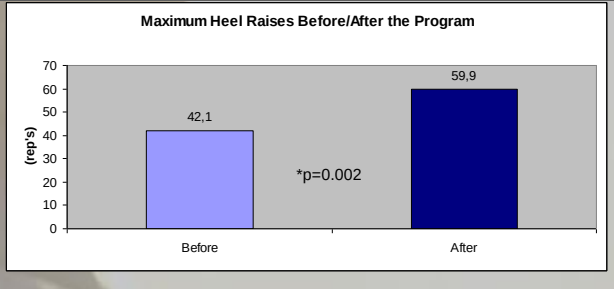


Table 2 – values for number of repetitions of elevation of heel (EH) before and after the HB program respectively.



Conclusions

A weekly supervised HB program with walk and strength training of leg muscles shows effectiveness with these patients in the relief of symptoms of IC. Nevertheless it iss necessary not only to verify these results in a group with more subjects but also to give and spread orientations about the importance of physical exercise programs with these populations.

References

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